

REMARKS

By the present Amendment, claims 1 and 2 have been rewritten to read, respectively, as follows:

"1. A method for the manufacturing of a masking member made of a thermoplastic resin, comprising: preparing a CAD data of the design of an article having a prescribed section to be protected from coating, making a mold referring said CAD data, said mold being used for vacuum and/or pressure forming to manufacture a masking member which covers said section to protect from the coating, and vacuum and/or pressure forming a thermoplastic resin sheet to manufacture said masking member by using said mold.

"2. A method for the manufacturing of the thermoplastic resin masking member of Claim 1, wherein said article is a bumper of a car and said section is an air intake of said bumper."

The added recitals are supported by the disclosure of the original specification e.g. at pp. 5-6. Since this Amendment does not increase either the total number of claims or the number of independent claims, no additional fee is necessary.

Claims 1 (independent) and 2 - 9 (dependent on 1) are in the application. No claim has been allowed.

Rejection under §112

The amendment of claim 1 makes clear that the CAD data relates to the design of an article (not part) and changes the term "part" to the term "section" as applicants believe that the term "section" is preferable, with the added recital defining the section as "to be protected from coating." Further, the amendment of claim 1 clarifies that the masking member is made of thermoplastic resin sheet. Amended Claim 2 specifies that the article is a bumper of a car and that the aforesaid section is an air intake of said bumper.

It is submitted that these amendments self-evidently overcome all grounds of rejection of the claims under 35 U.S.C. §112, second paragraph, as indefinite. All such grounds were directed solely to recitals in claim 1 as previously presented; claims 2 - 9, as understood, were rejected under §112, second paragraph, only because of their dependence on claim 1.

Rejections under §103(a)

Claims 1 and 2 have been rejected under 35 U.S.C. §103(a) as unpatentable over EP 1110619 A1 (Ogawa et al.) in view of US2001/0018622 (Asano et al.).

Ogawa et al. describes a masking member to protect a section of an article from coating, the masking member being made of a thermoplastic resin, but does not teach or suggest the use of CAD data to design the mold to manufacture the masking member. Asano et al. describes a parting line determination means in a mold design system and in that system, the parting line in the mold is determined by referring to 3D CAD data of the product. The Office Action asserts that it would have been obvious to use a CAD system to design the mold in the manufacturing method of Ogawa et al. "because Asano et al. teach using a CAD system to design a mold rapidly determines a mold parting line with accuracy."

In the present invention as defined in amended claim 1, however, the mold used to manufacture the masking member to protect the prescribed section from coating is made referring CAD data of the design of an article having that section.

Accordingly, in the present invention, since the masking member is produced using the CAD data relating to the design of the article for which the masking member is used, the production of the trial mold for the masking member can be started when the design of said article is complete, so that the production of the masking member can start early.

Further, since the mold for the masking member is manufactured using the CAD data and without the use of gypsum, the mold will have a smooth surface, and a high level of accuracy can be ensured, so that a good coating test result is guaranteed, making a repeated trial process wherein the trial mold is modified and then molded to conduct a further coating test unnecessary, resulting in the final mold's production time being cut to a relatively short period.

Further, since the mold for the masking member is produced in the present invention using the aforesaid CAD data, the addition of the calculated thermal contraction ratio after molding to the CAD data will enable the precise modification of the effect of the masking member's thermal contraction after molding, and such modification can be performed in a short time.

The object of Asano et al. is quite different from the object of the present invention; hence the above-described effect of the present invention is unexpected and unobvious from the disclosures of Ogawa et al. and Asano et al., whether considered separately or together.

It is therefore submitted that claim 1 as herein amended distinguishes patentably over Ogawa et al. and Asano et al. and any proper combination thereof.

Claims 2 - 9, being dependent on claim 1, are submitted to be allowable therewith. The secondary references (Irie, Horiki et al. and Busky et al.) combined with Ogawa et al. and Asano et al. in the rejection of certain of the dependent claims add nothing thereto with respect to the novel and distinguishing combination of features recited in amended claim 1.

For the foregoing reasons, it is believed that this application is now in condition for allowance. Favorable action thereon is accordingly courteously requested.

Respectfully,

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I hereby certify that this paper is being deposited this date with the U.S. Postal Service as first class mail addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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